

## THREE-ION INTERACTIONS IN SIMPLE LIQUID METALS

*E. V. Vasilii*

Odesa State Polytechnic University  
(1, Shevchenko Prosp., Odesa 65044, Ukraine)

### S u m m a r y

On the basis of the many-particle theory of metals in the third order of the perturbation expansion in a pseudopotential, the potentials of pair and three-ion interactions in liquid polyvalent metals Pb, Al, and Be are calculated at their melting temperatures. The reducible and irreducible three-ion interactions have an attractive character at distances appropriate to the average distance between ions in metal and have damped oscillations at large distances. The potentials reliefs created by a pair of fixed ions relative to the third ion are constructed. It is shown that the contribution of reducible and irreducible three-ion interactions is increased with the density of the electronic subsystem of metal.